

## **The Hawaii-based Longline Logbook Summary Report October-December 2005<sup>1</sup>**

Pacific Islands Fisheries Science Center  
Fishery Monitoring and Economics Program

All Federal longline logbook data for trips completed in the fourth quarter of 2005 by Hawaii-based longline vessels have been received and processed and are summarized in this report. Although most of the data from trips that began late in the fourth quarter of 2005 and continued into the first quarter of 2006 are included, this report should still be considered preliminary.

Since April 2, 2004, the Hawaii-based longline fishery has operated under rules that have restricted the amount of effort, the kind of hooks used, and bait types. Separate species-specific limits on sea turtle interactions are in effect for the swordfish fishery. Other mitigation measures, such as dehooking devices, are also required for both the tuna and swordfish components of the Hawaii-based longline fishery.

A total of 117 vessels were active in the fishery during the third quarter of 2005, 2 more than in the same period last year (Fig. 1). There were 453 longline trips in the fourth quarter of 2005, 2 less than the previous year (Fig. 2). Almost all trips were tuna-targeted (442 trips). The total number of hooks set in this quarter was a record 9.7 million, an increase of 500,000 hooks from the fourth quarter of last year (Fig. 3). Seventy-one percent of the hooks were set in the main Hawaiian Islands (MHI) Exclusive Economic Zone (EEZ). Other effort was recorded outside of the U.S. EEZ (19%) and in the Northwestern Hawaiian Islands (NWHI) EEZ (10%).

Bigeye tuna catch reached a record 37,287 fish in the fourth quarter of 2005 (Fig. 4), with 67% caught in the MHI EEZ. Bigeye tuna catch-per-unit of effort (CPUE) on tuna-targeted trips was 3.9 fish per 1000 hooks (Fig. 5). Albacore catch and CPUE dropped by 62% (1,534 fish) and 67% (0.1) from the same period of last year, respectively (Figs. 6-7). Yellowfin tuna catch (7,993 fish) and CPUE (0.8) were slightly less than those in the fourth quarter of last year (Figs. 8-9).

Swordfish catch declined 13% from the same period of the previous year to 2,084 fishes (Fig. 10). Swordfish-targeted swordfish CPUE was 10.8 fish per 1,000 hooks while tuna-targeted swordfish CPUE was 0.1 in the fourth quarter of 2005 (Fig. 11). Striped marlin catch (3,585 fish) and CPUE (0.4) values were below those of last year (Figs. 12-13). Blue marlin catch and CPUE were 841 and 0.1, respectively (Figs. 14-15).

A total of 25,940 sharks were caught in the fourth quarter of 2005, of which less than 3% (780) were kept. Blue shark comprised 93% of the total shark catch (24,168 fish) (Fig. 16). Blue shark CPUE on swordfish-targeted trips was 12.9 (Fig. 17).

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<sup>1</sup> PIFSC Data Report DR-06-001  
Issued 14 February 2006

Table 1.--Western Pacific longline logbook summary for 10/2005 through 12/2005  
(Vessels landing or based in Hawaii)  
(Date of haul; Area totals; All areas)

Trip information			
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Number of vessels	117		
Number of trips	453		
Number of sets	4,860		
Number of hooks set	9,704,099		
Number of light sticks used	51,706		
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Species catch information			
-----			
Species class			# caught
Species	# kept	# caught	per 1000 hooks
-----			
Pelagic Management Unit Species (PMUS)			
-----			
Billfish			
Blue Marlin	835	841	0.09
Spearfish	3,310	3,370	0.35
Striped Marlin	3,495	3,585	0.37
Swordfish	1,779	2,084	0.21
Other	171	172	0.02
Total	9,590	10,052	1.04
Sharks			
Blue	334	24,168	2.49
Mako	308	571	0.06
Thresher	121	773	0.08
Other	17	428	0.04
Total	780	25,940	2.67
Tuna			
Albacore	1,442	1,534	0.16
Bigeye	36,235	37,287	3.84
Bluefin	2	2	0.00
Skipjack	2,972	3,209	0.33
Yellowfin	7,703	7,993	0.82
Other	6	8	0.00
Total	48,360	50,033	5.16
Other PMUS			
Mahimahi	29,206	29,768	3.07
Moonfish	2,838	2,855	0.29
Oilfish	5,027	5,151	0.53
Pomfret	10,726	10,849	1.12
Wahoo	2,179	2,205	0.23
Total	49,976	50,828	5.24
Miscellaneous			
-----			
Non-PMUS	154	1,792	0.18

Date and time of summary:

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Table 2.--Western Pacific longline logbook PSI summary for 10/2005 through 12/2005  
 (ALL Vessels landing or based in Hawaii)  
 (Date of haul; All vessels; All trips; All areas)

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Reported Protected Species catch information				
-----				
Species	Alive/Uninjured	Injured	Dead	Total
-----	-----	-----	-----	-----
Seals/Sea Lions				
Monk Seals	0	0	0	0
Other Seals	0	0	0	0
Sea Lions	0	0	0	0
Total Seals/Sea Lions	0	0	0	0
Whales/Dolphins				
Humpback Whales	0	0	0	0
False Killer Whales	0	0	0	0
Other Whales	1	0	0	1
Dolphins	0	0	0	0
Total Whales/Dolphins	1	0	0	1
Turtles				
Green Turtles	0	0	0	0
Hawksbill Turtles	0	0	0	0
Leatherback Turtles	0	1	0	1
Loggerhead Turtles	0	0	0	0
Olive Ridley Turtles	0	1	2	3
Unidentified Turtles	0	0	0	0
Other Turtles	0	0	0	0
Total Turtles	0	2	2	4
Birds				
Albatross	0	0	1	1
Booby	0	0	0	0
Other Birds	0	0	0	0
Total Birds	0	0	1	1
Other Species	0	0	0	0

Date and time of summary:

02/13/06 (07:49:52)

Table 3.--Western Pacific longline logbook summary for 1/2005 through 12/2005  
(Vessels landing or based in Hawaii)  
(Date of haul; Area totals; All areas)

Trip information			
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Number of vessels	124		
Number of trips	1,533		
Number of sets	18,083		
Number of hooks set	34,895,229		
Number of light sticks used	750,417		
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Species catch information			
-----			
Species class			# caught
Species	# kept	# caught	per 1000 hooks
-----			
Pelagic Management Unit Species (PMUS)			
-----			
Billfish			
Blue Marlin	4,229	4,315	0.12
Spearfish	14,435	14,794	0.42
Striped Marlin	15,292	15,730	0.45
Swordfish	21,138	23,797	0.68
Other	384	391	0.01
Total	55,478	59,027	1.69
Sharks			
Blue	657	66,404	1.90
Mako	1,309	3,076	0.09
Thresher	381	3,606	0.10
Other	142	1,989	0.06
Total	2,489	75,075	2.15
Tuna			
Albacore	13,049	13,467	0.39
Bigeye	125,249	128,974	3.70
Bluefin	6	6	0.00
Skipjack	12,402	14,155	0.41
Yellowfin	26,556	28,862	0.83
Other	45	48	0.00
Total	177,307	185,512	5.32
Other PMUS			
Mahimahi	75,142	77,560	2.22
Moonfish	13,186	13,279	0.38
Oilfish	21,506	22,303	0.64
Pomfret	46,827	47,205	1.35
Wahoo	16,015	16,140	0.46
Total	172,676	176,487	5.06
Miscellaneous			
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Non-PMUS	1,823	5,356	0.15

Date and time of summary:

02/13/06 (07:48:11)

Table 4.--Western Pacific longline logbook PSI summary for 1/2005 through 12/2005  
 (ALL Vessels landing or based in Hawaii)  
 (Date of haul; Area totals; All areas)

----- Reported Protected Species catch information -----				
Species -----	Alive/Uninjured -----	Injured -----	Dead -----	Total -----
Seals/Sea Lions				
Monk Seals	0	0	0	0
Other Seals	0	0	0	0
Sea Lions	0	0	0	0
Total Seals/Sea Lions	0	0	0	0
Whales/Dolphins				
Humpback Whales	0	0	0	0
False Killer Whales	0	1	1	2
Other Whales	3	1	0	4
Dolphins	1	1	0	2
Total Whales/Dolphins	4	3	1	8
Turtles				
Green Turtles	0	0	0	0
Hawksbill Turtles	0	0	0	0
Leatherback Turtles	1	6	0	7
Loggerhead Turtles	1	7	0	8
Olive Ridley Turtles	1	1	2	4
Unidentified Turtles	0	0	0	0
Other Turtles	0	0	0	0
Total Turtles	3	14	2	19
Birds				
Albatross	15	23	30	68
Booby	0	0	0	0
Other Birds	0	0	0	0
Total Birds	15	23	30	68
Other Species	0	0	0	0

Date and time of summary:

02/13/06 (07:51:38)

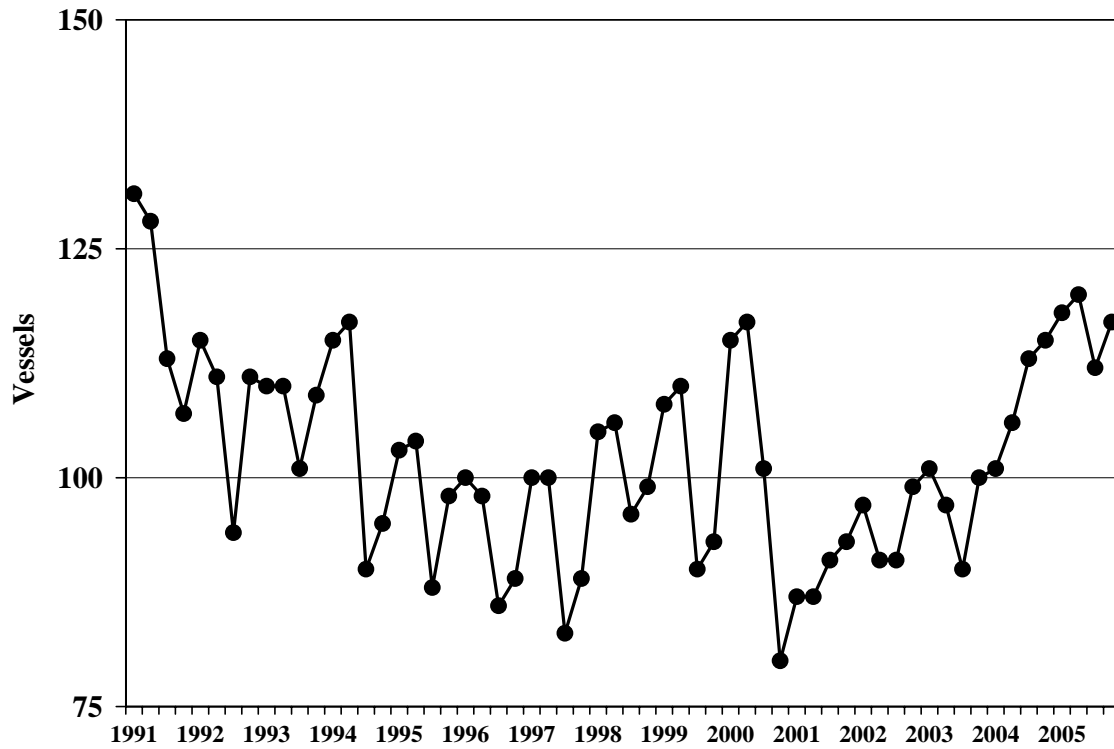


Figure 1.—Active Hawaii-based longline vessels, 1991-2005.

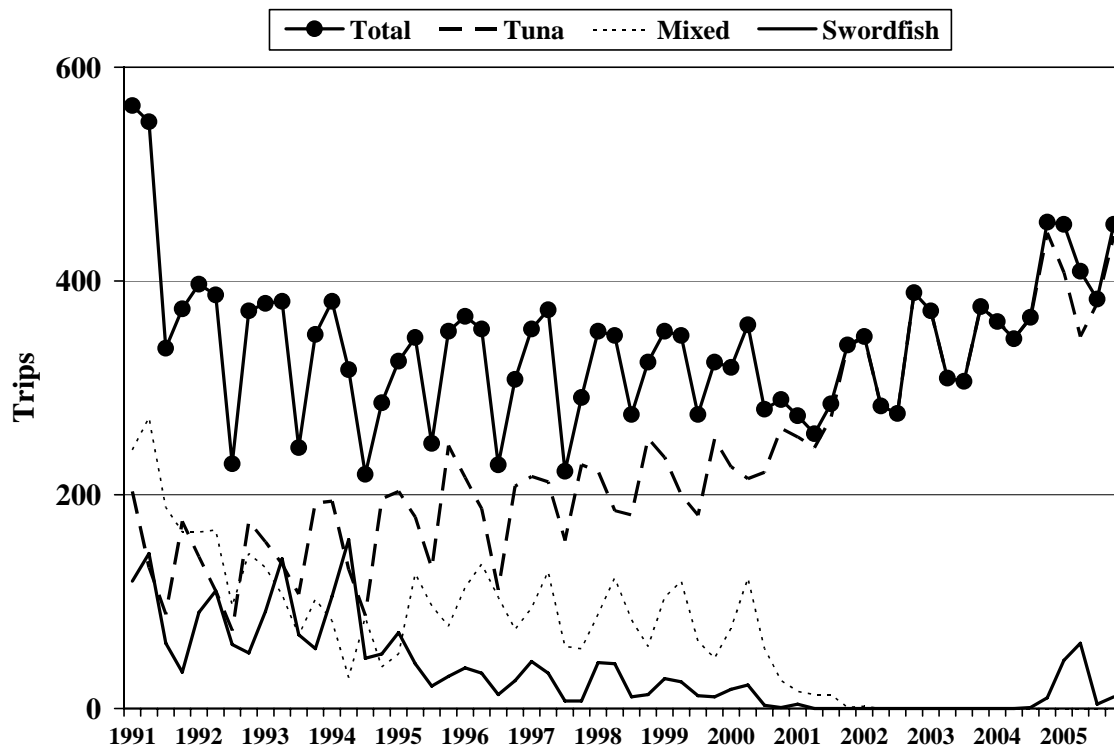


Figure 2.—Trips made by Hawaii-based longline vessels, 1991-2005.

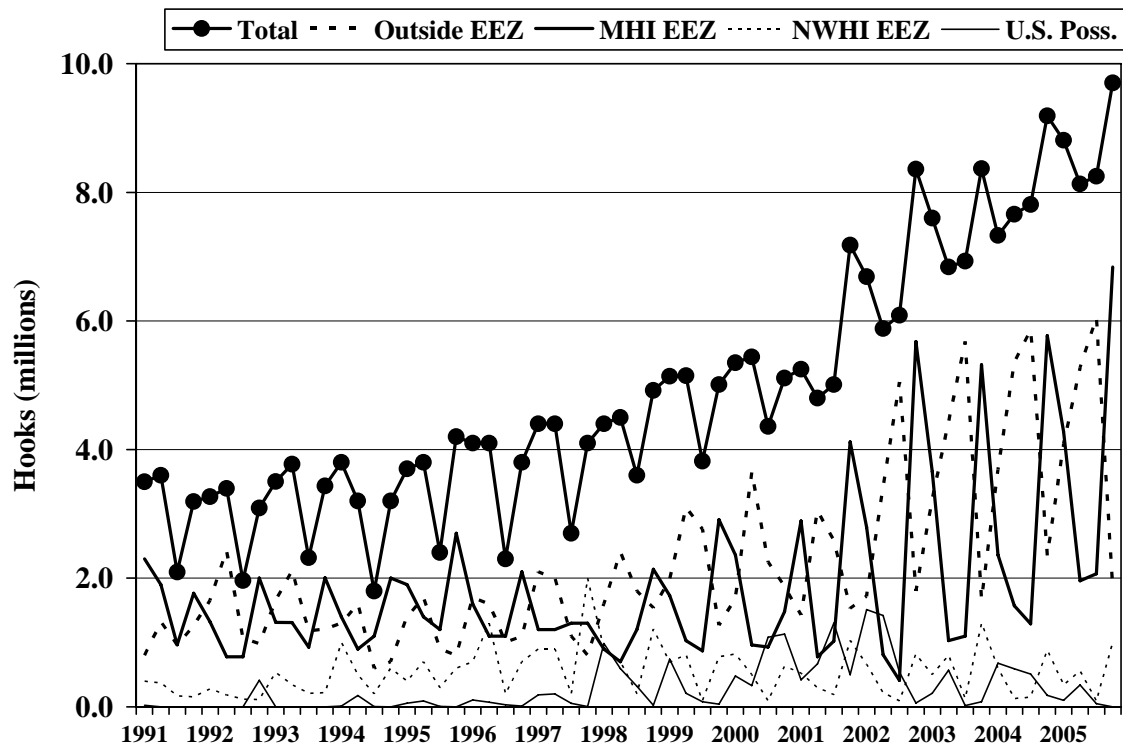


Figure 3.—Hooks set by the Hawaii-based longline fishery by quarter, 1991-2005.

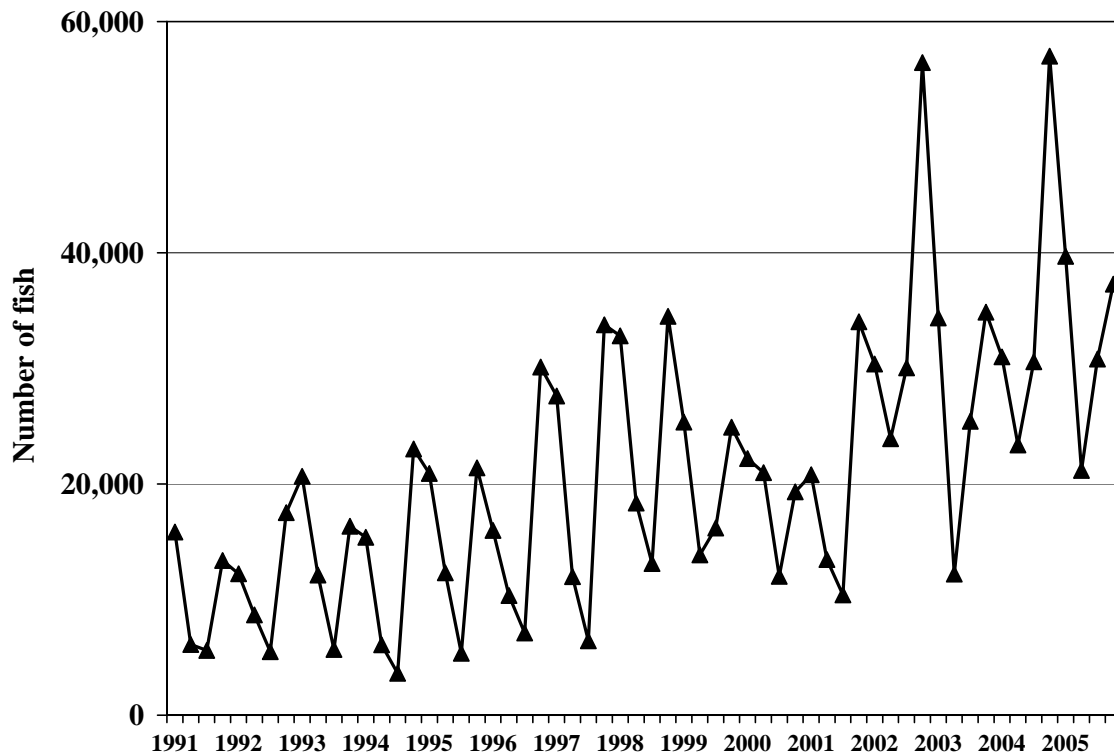


Figure 4.—Hawaii-based longline catch of bigeye tuna by quarter, 1991-2005.

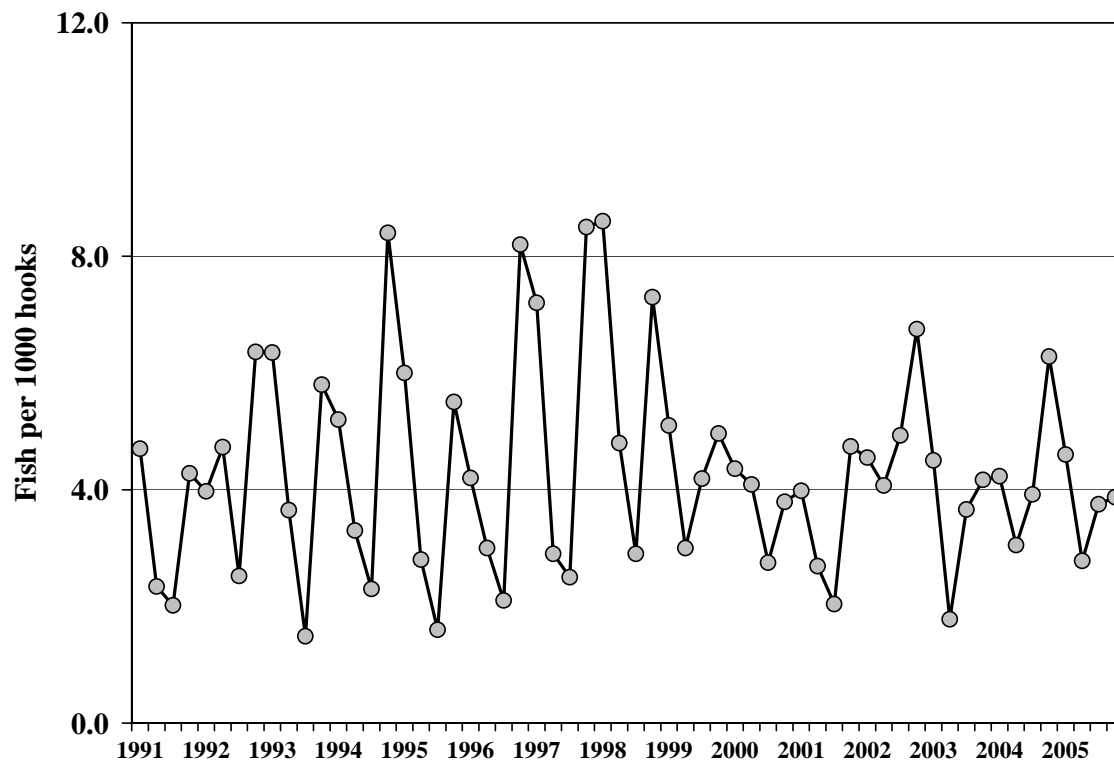


Figure 5.—Bigeye tuna CPUE for tuna-targeted trips by quarter, 1991-2005.



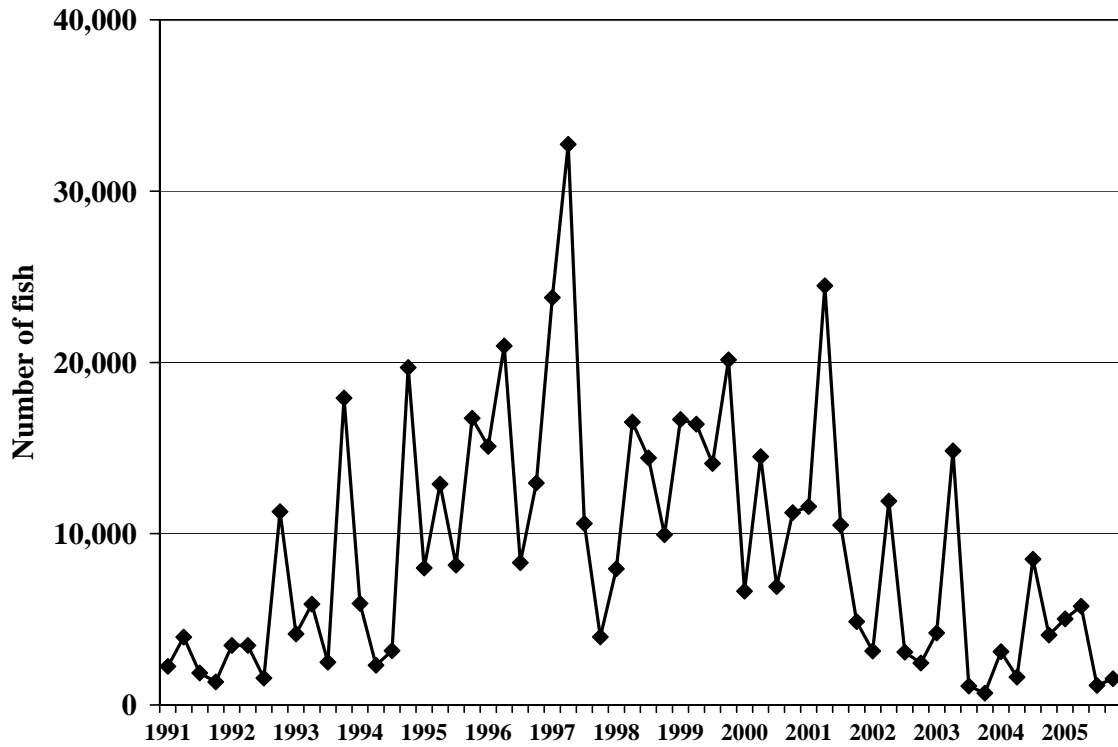


Figure 6.—Hawaii-based longline catch of albacore by quarter, 1991-2005.

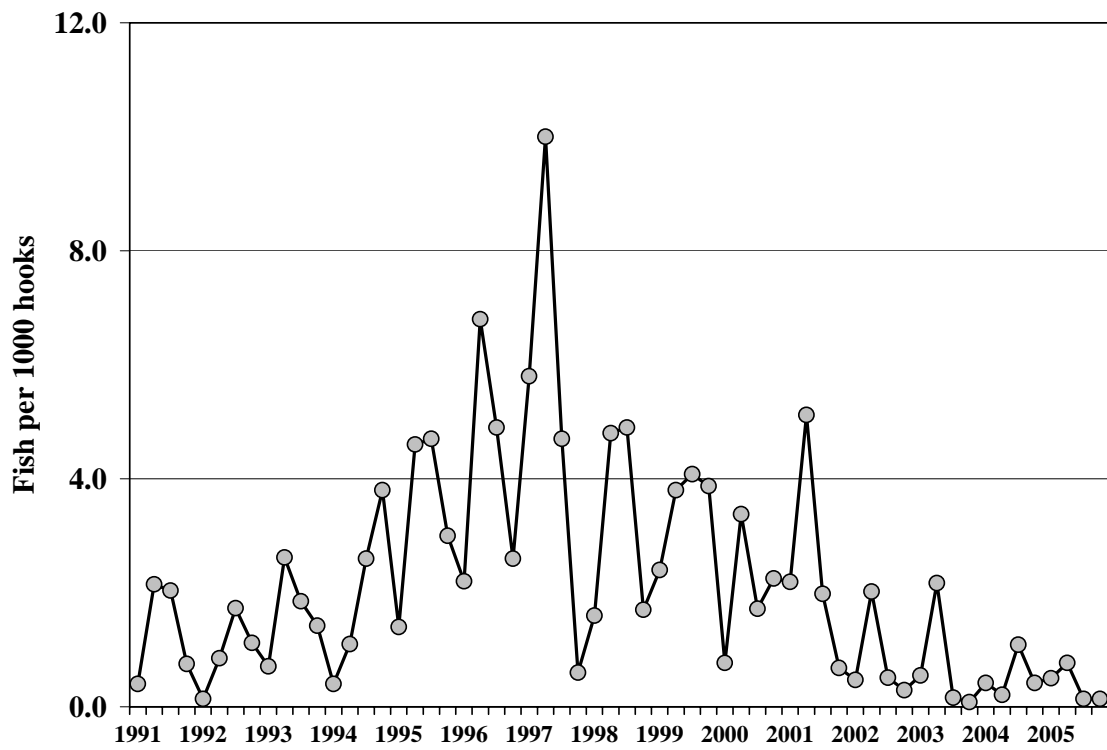


Figure 7.—Albacore CPUE for tuna-targeted trips by quarter, 1991-2005.

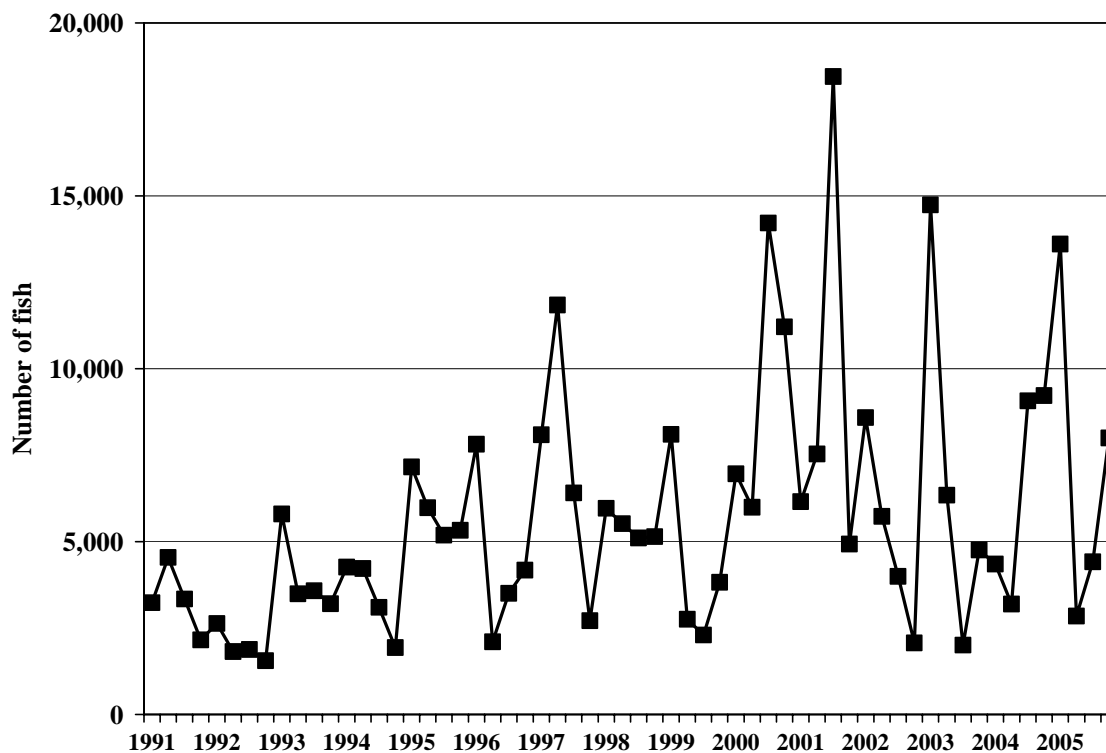


Figure 8.—Hawaii-based longline catch of yellowfin tuna by quarter, 1991-2005.

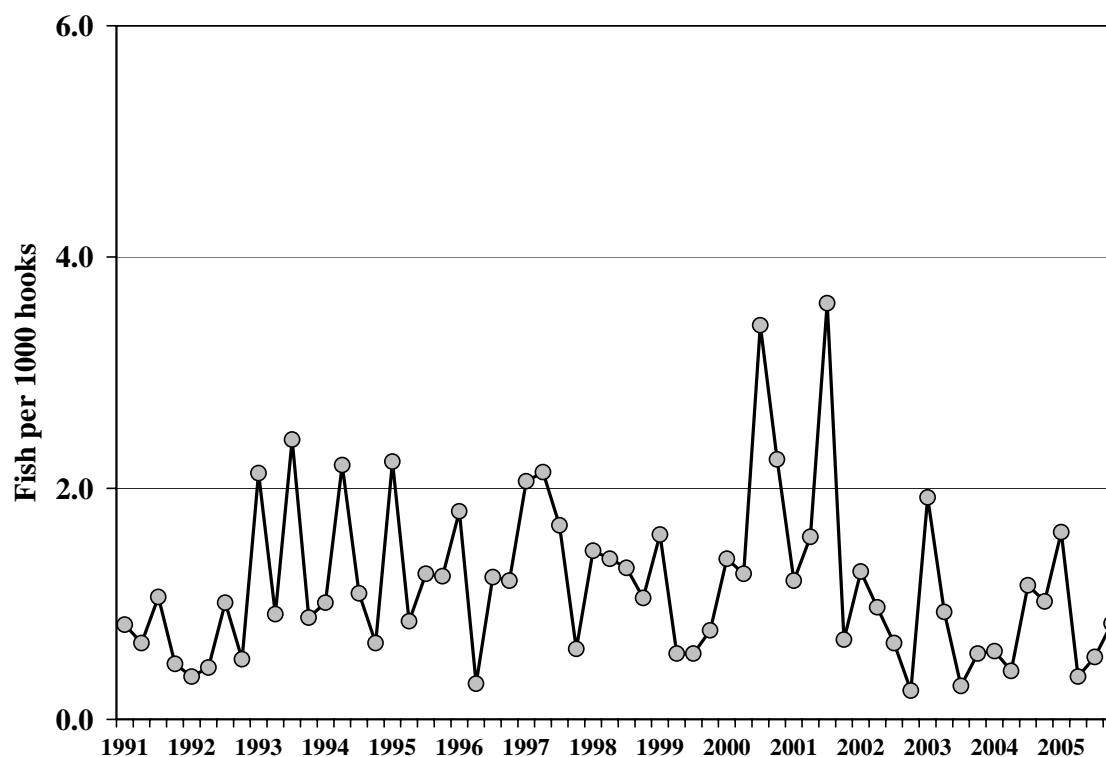


Figure 9.—Yellowfin tuna CPUE for tuna-targeted trips by quarter, 1991-2005.

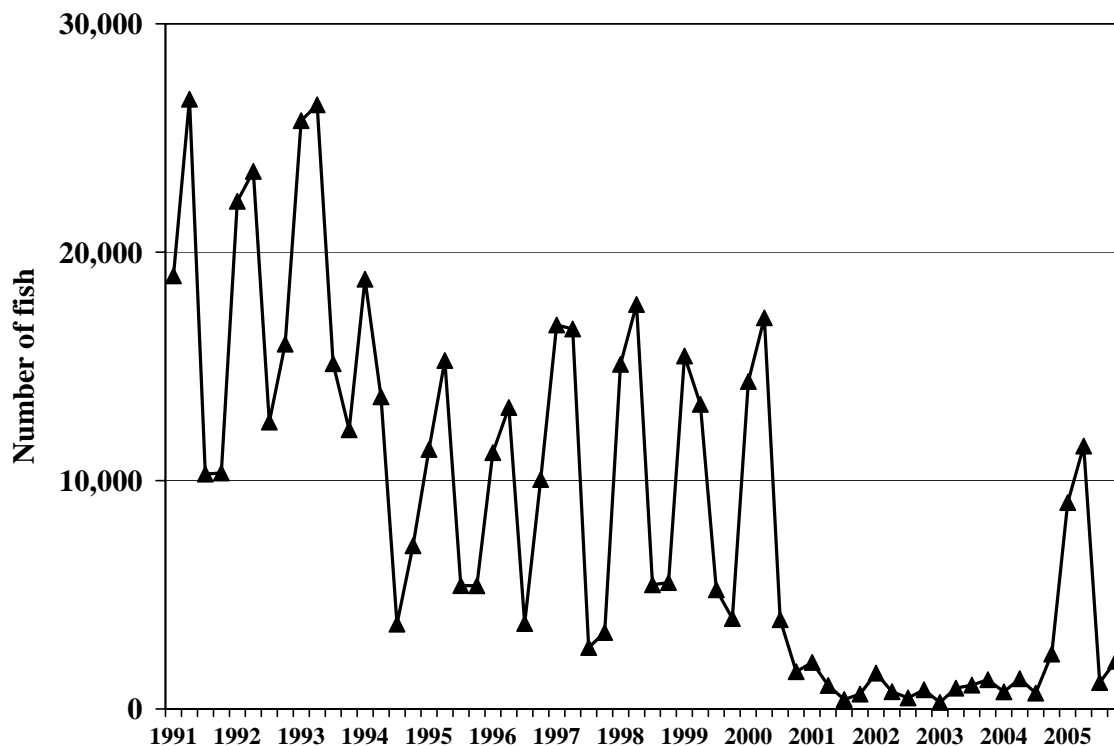


Figure 10.—Hawaii-based longline catch of swordfish by quarter, 1991-2005.

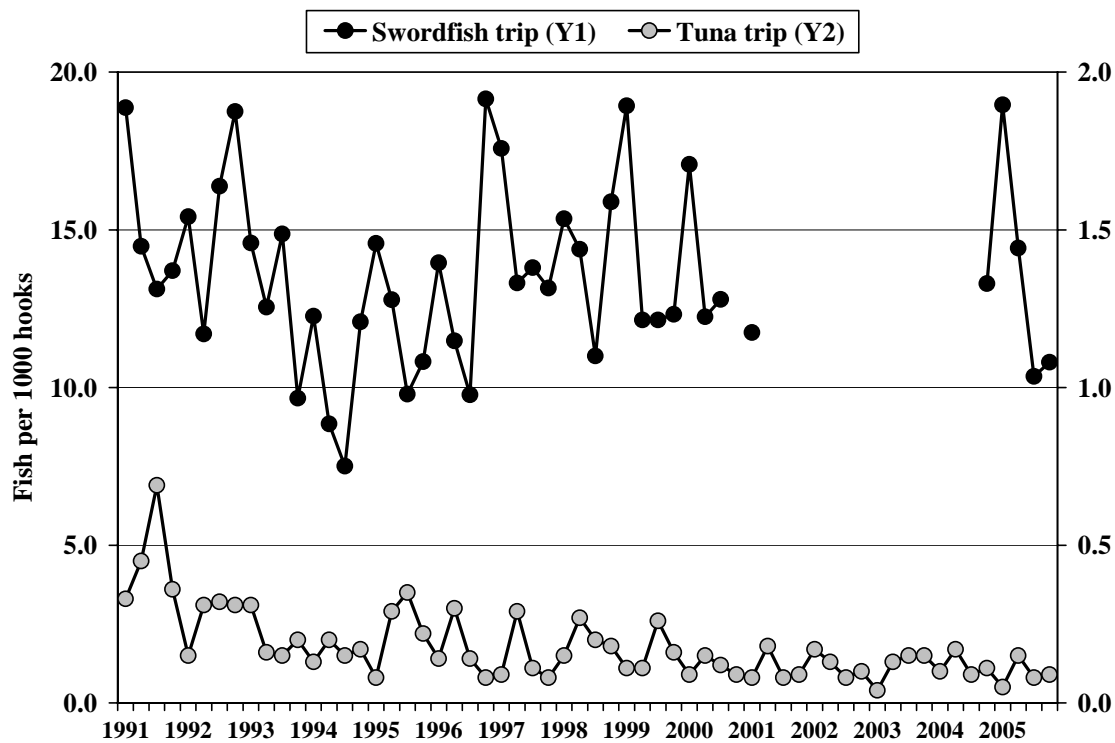


Figure 11.—Swordfish CPUE by quarter, 1991-2005.

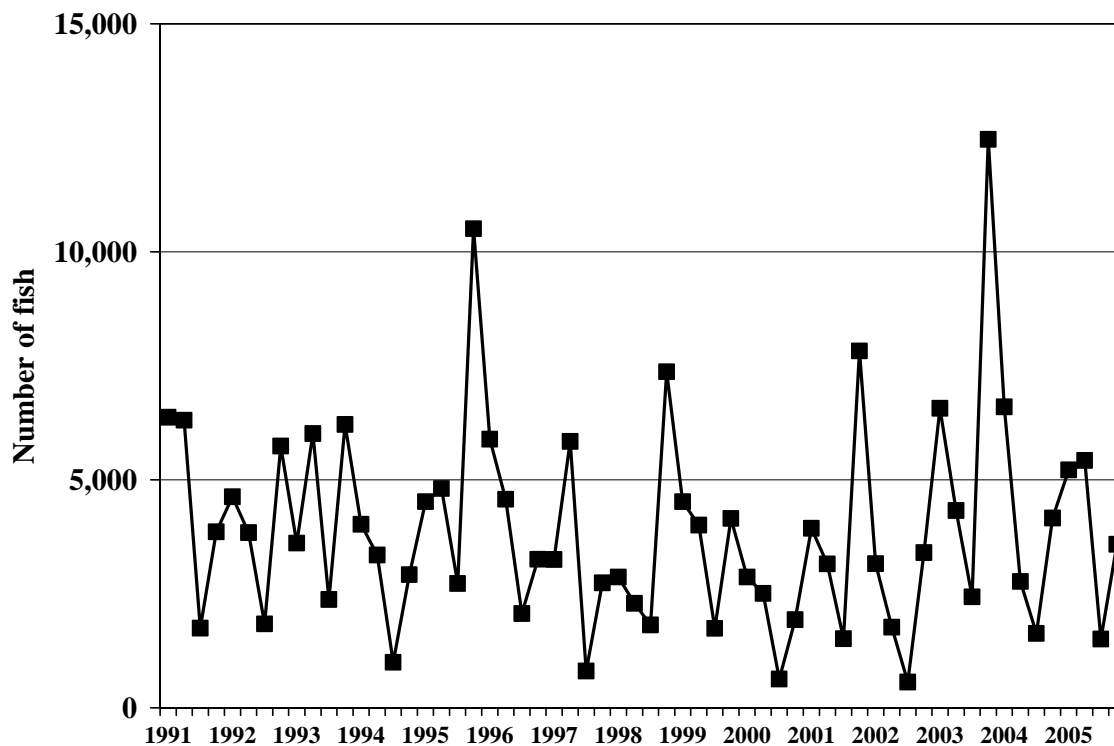


Figure 12.—Hawaii-based longline catch of striped marlin by quarter, 1991-2005.

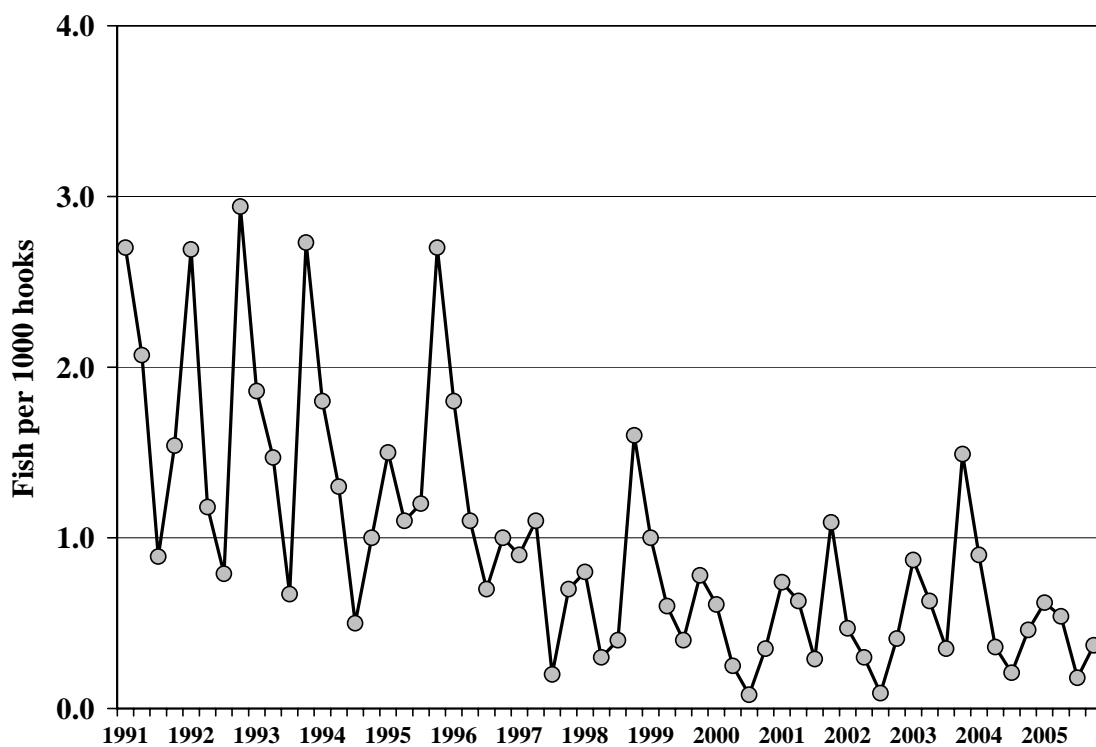


Figure 13.—Striped marlin CPUE for tuna-targeted trips by quarter, 1991-2005.

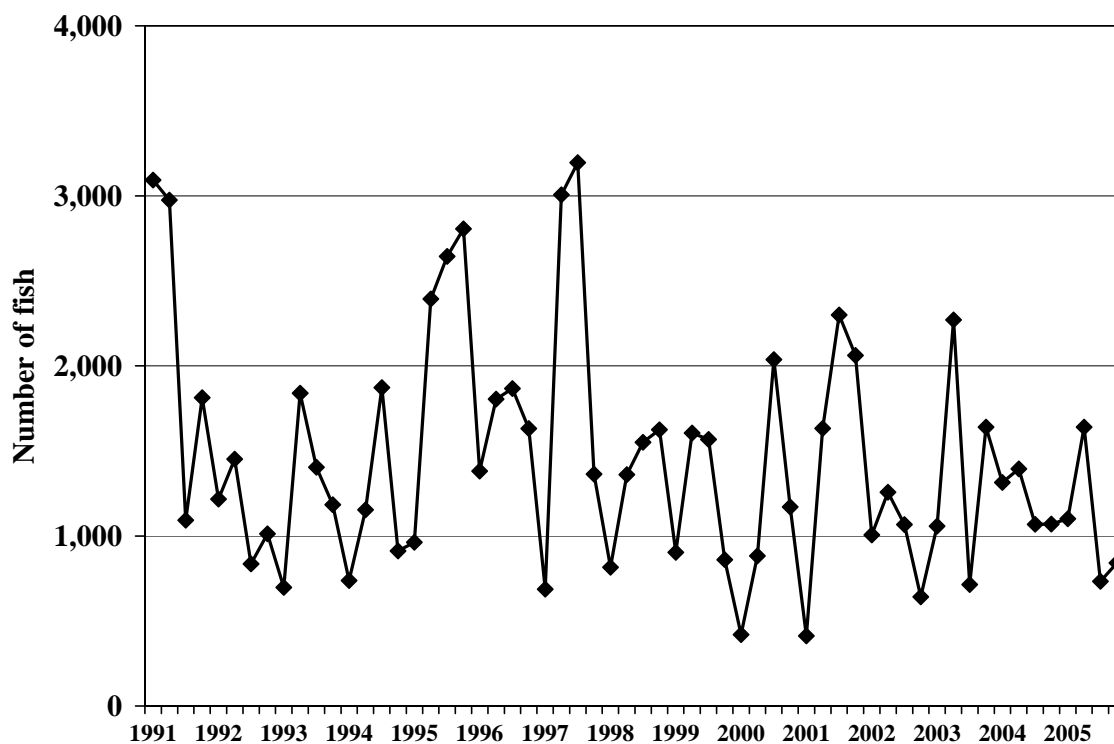


Figure 14.—Hawaii-based longline catch of blue marlin by quarter, 1991-2005.

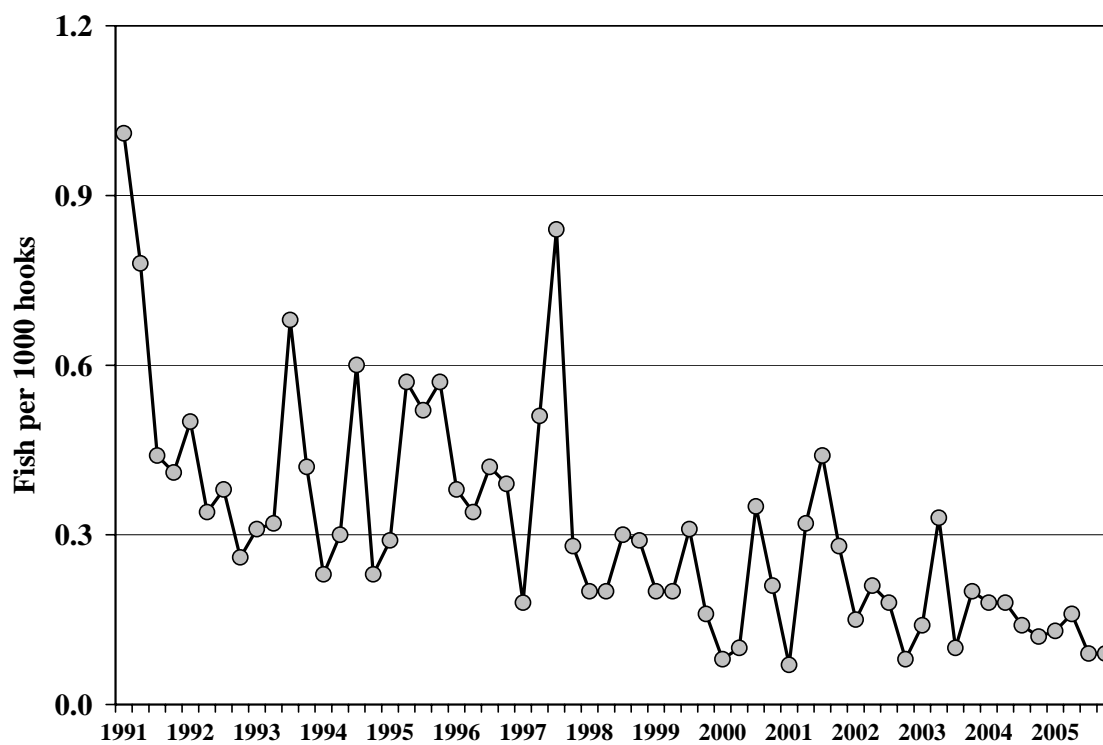


Figure 15.—Blue marlin CPUE for tuna-targeted trips by quarter, 1991-2005.

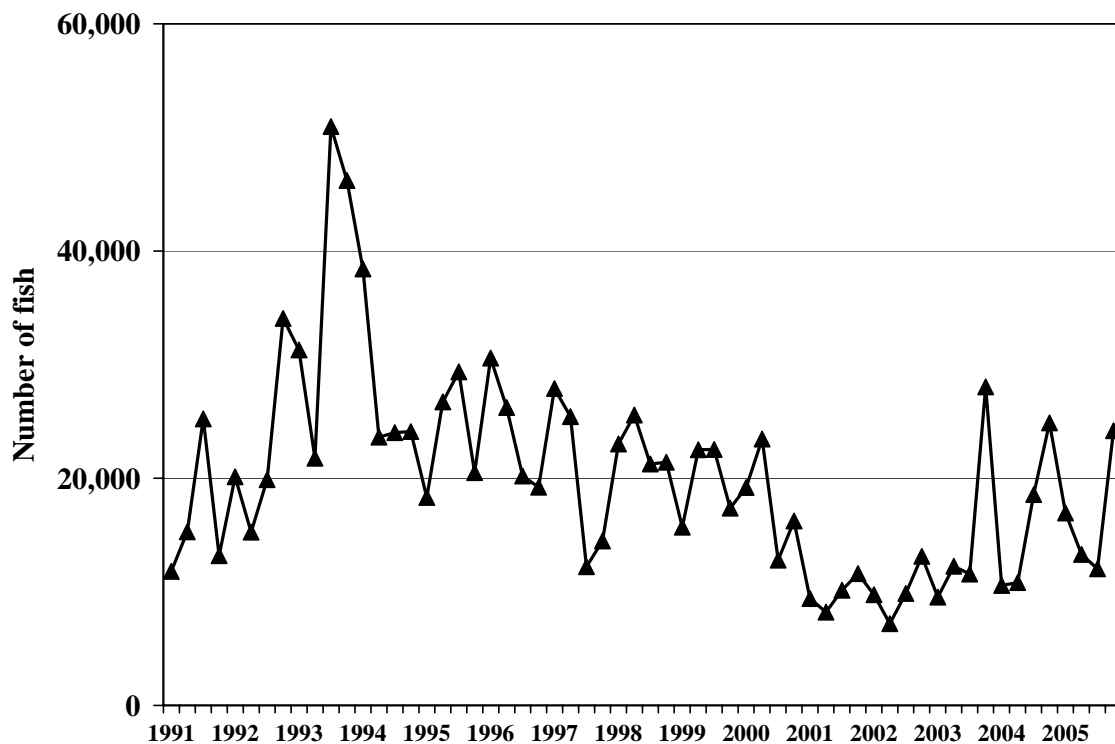


Figure 16.—Hawaii-based longline catch of blue shark by quarter, 1991-2005.

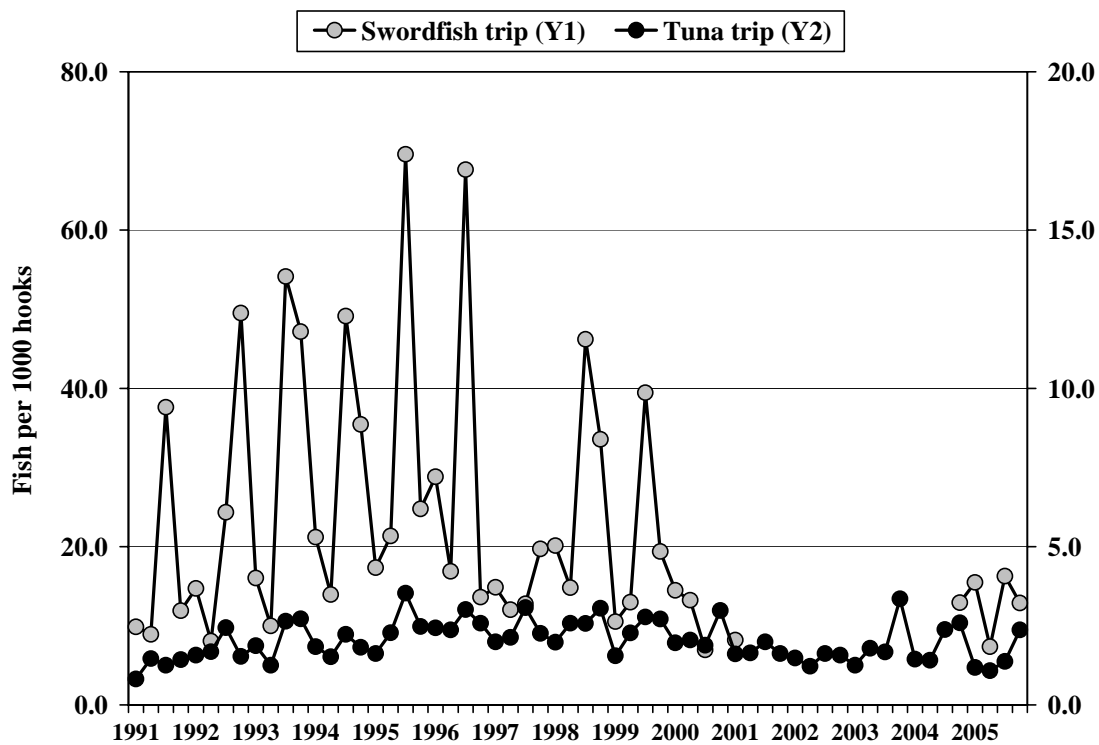


Figure 17.—Blue shark CPUE by quarter, 1991-2005.

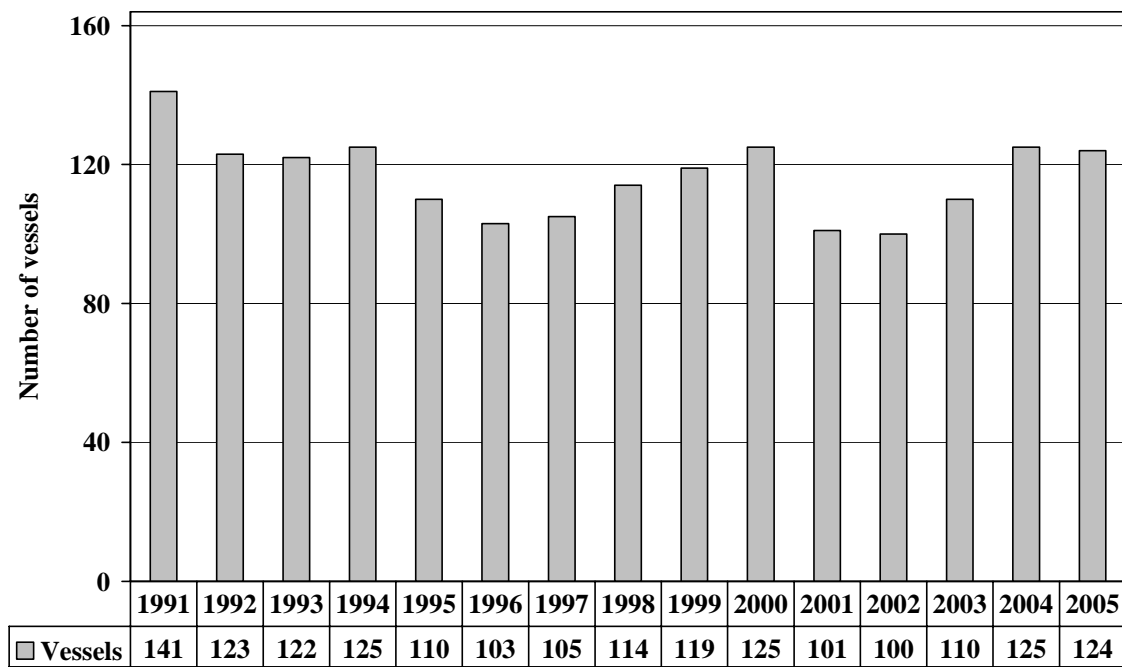


Figure A1.--Number of active Hawaii-based longline vessels, 1991-2005.

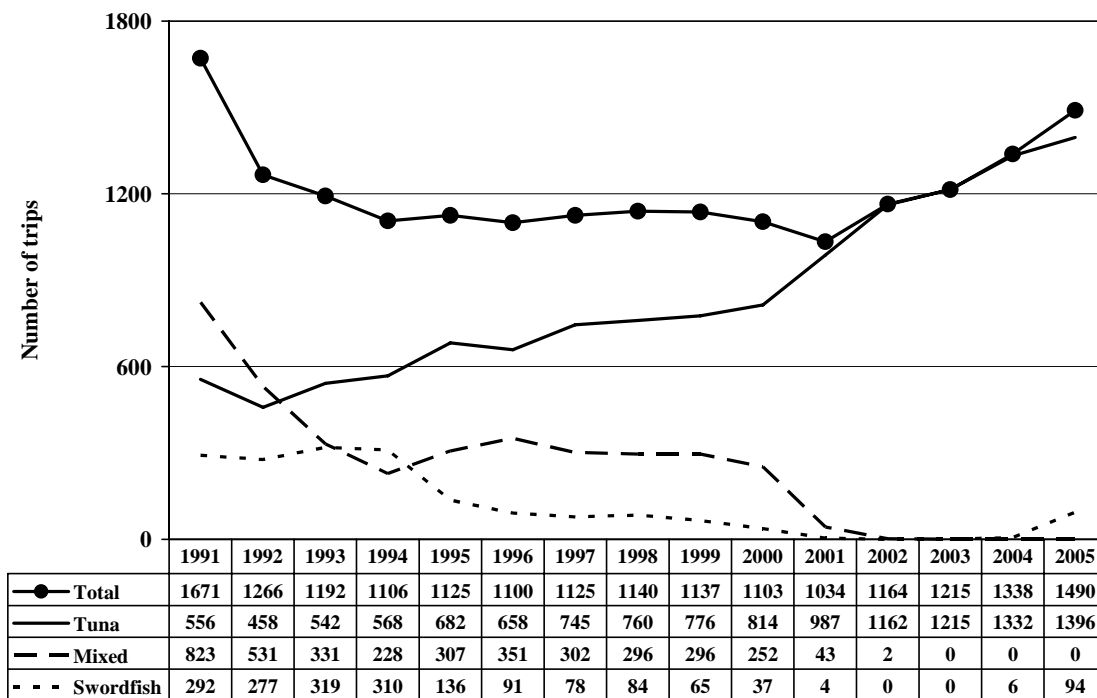


Figure A2.--Number of trips by the Hawaii-based longline fishery, 1991-2005.

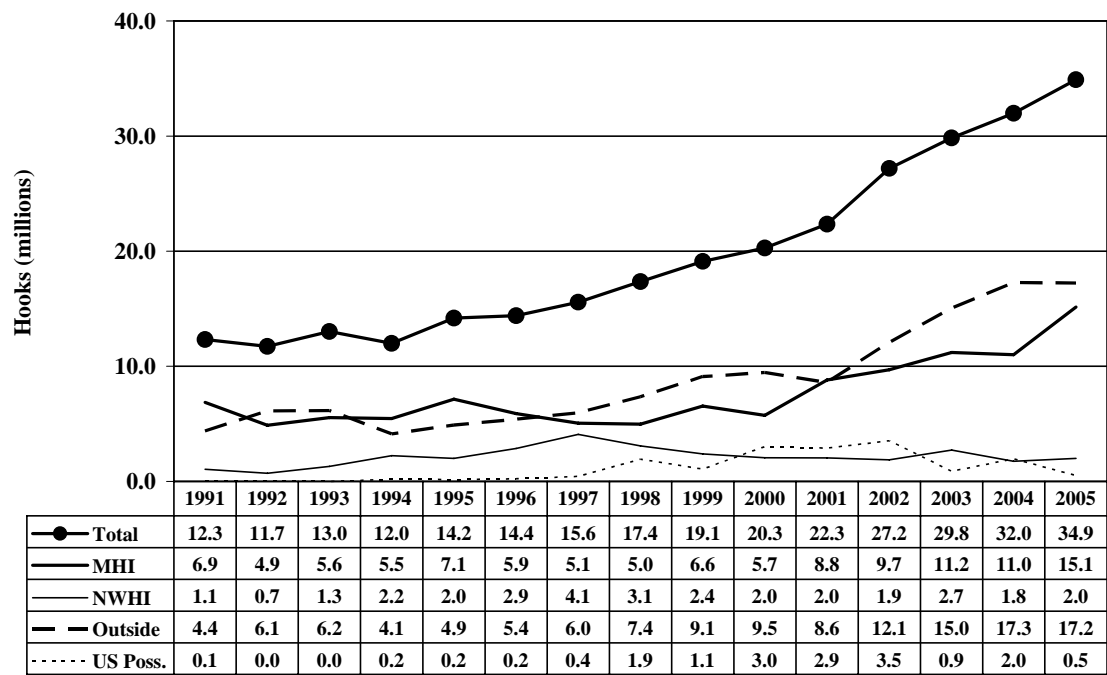


Figure A3.--Number of hooks set by area, 1991-2005.



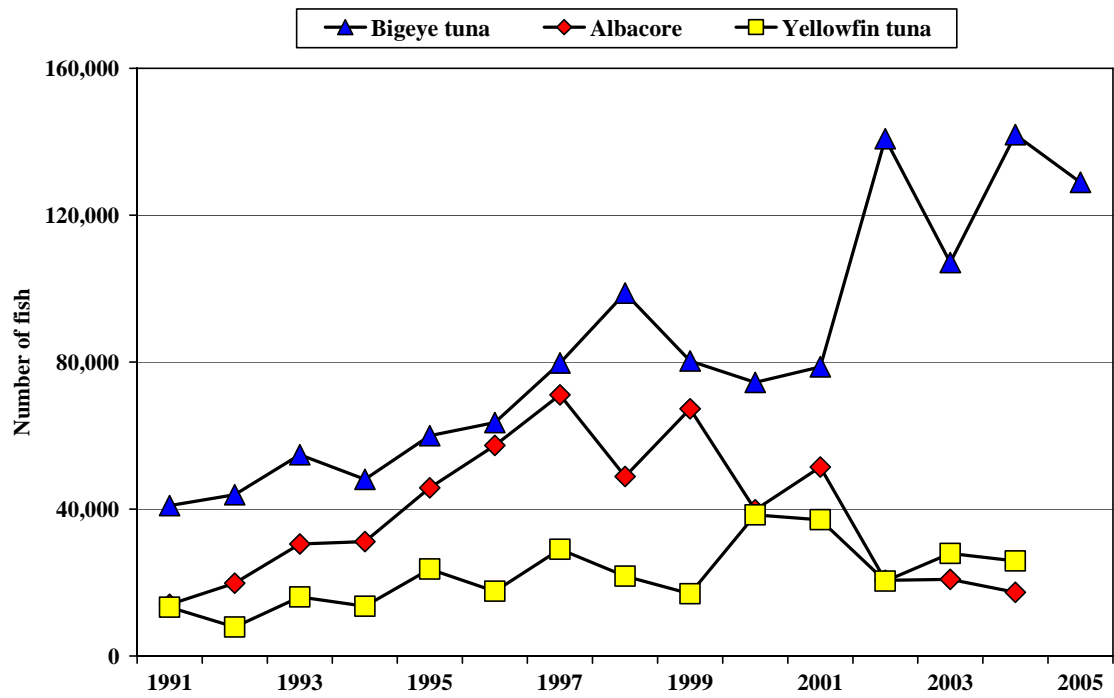


Figure A4.--Tuna catches by the Hawaii-based longline fishery, 1991-2005.

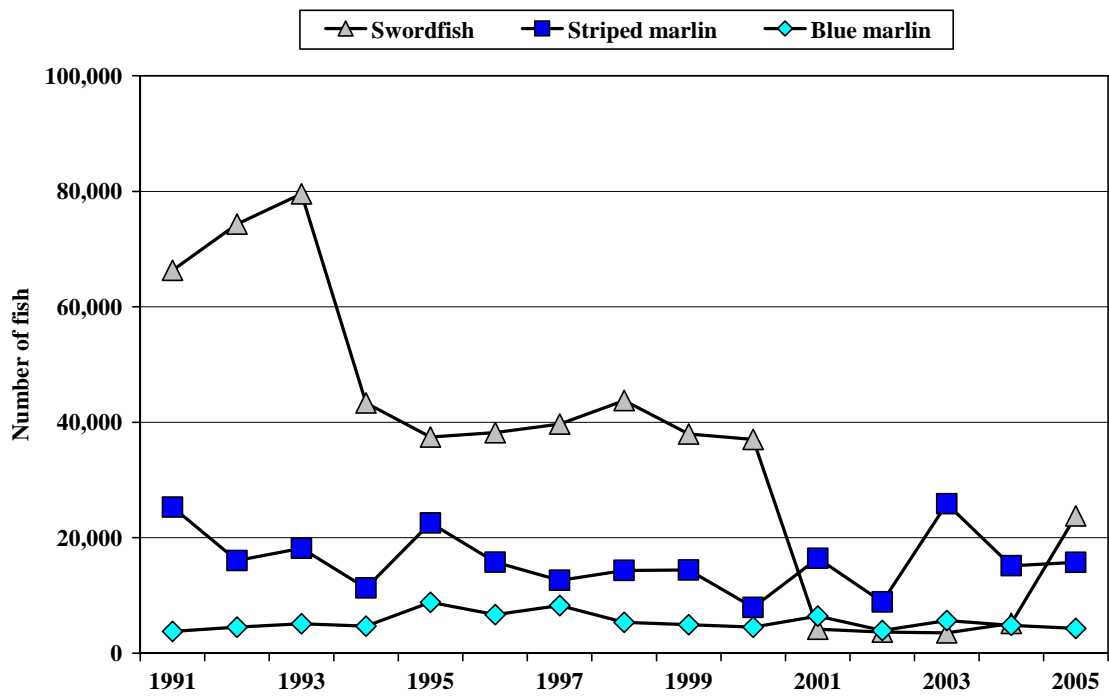


Figure A5.--Billfish catches by the Hawaii-based longline fishery, 1991-2005.

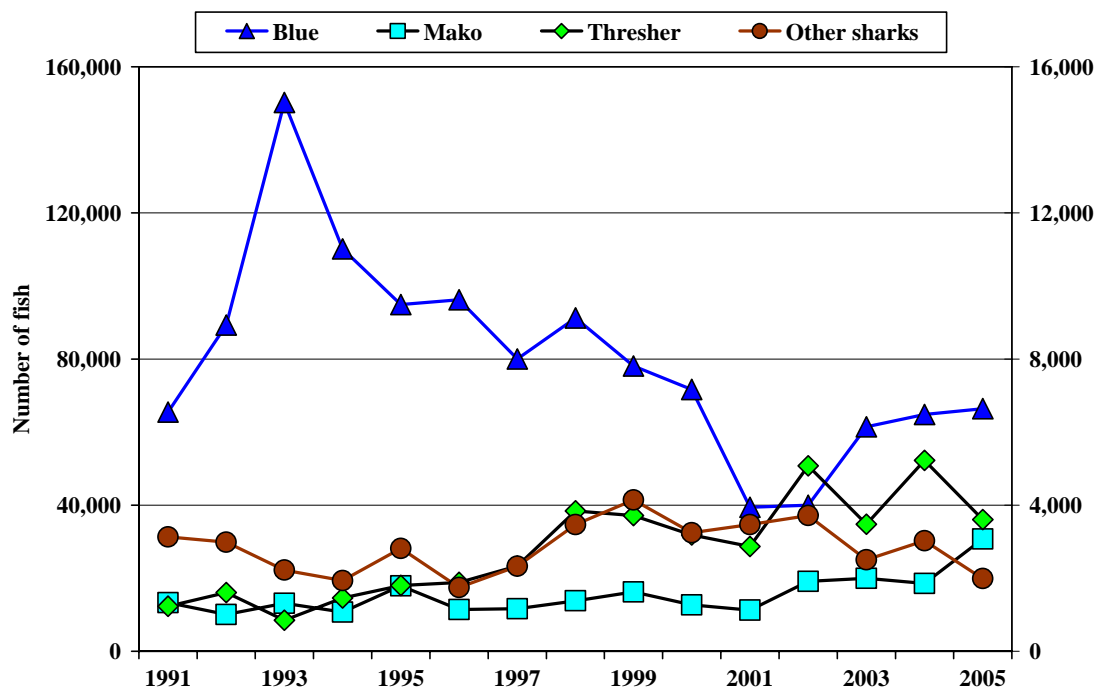


Figure A6.--Shark catches by the Hawaii-based longline fishery, 1991-2005.

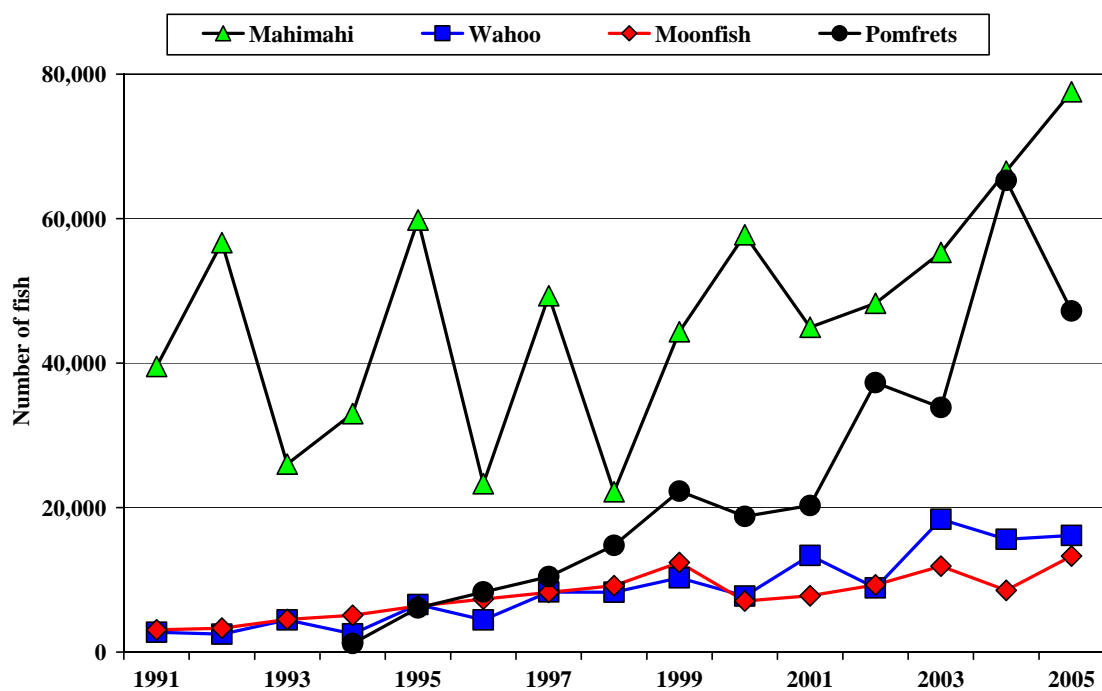


Figure A7.--Catch of miscellaneous pelagic species, 1991-2005.